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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/632,450	07/31/2003	Ramazan Benrashid	WGS-2003-A1	3840

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EXAMINER

KOSLOW, CAROL M

ART UNIT	PAPER NUMBER
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1755

DATE MAILED: 06/16/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/632,450

Applicant(s)

BENRASHID ET AL.

Examiner

C. Melissa Koslow

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _____ MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-33 is/are pending in the application.
- 4a) Of the above claim(s) 28-33 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-13 and 16-27 is/are rejected.
- 7) ☒ Claim(s) 14 and 15 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 31 July 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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The numbering of claims is not in accordance with 37 CFR 1.126. The claims include two claims numbered as "24". Misnumbered second claim 24 and claims 25-32 been renumbered as claims 25-33.

Applicants are reminded this new claim numbering should be formally corrected by amendment. Applicant's election of Group I, claims 1-27 in the paper dated 15 April 2006 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

Claims 28-33 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim.

The listing of references in the specification is not a proper information disclosure statement. 37 CFR 1.98(b) requires a list of all patents, publications, or other information submitted for consideration by the Office, and MPEP § 609 A(1) states, "the list may not be incorporated into the specification but must be submitted in a separate paper." Therefore, unless the references have been cited by the examiner on form PTO-892, they have not been considered.

The disclosure is objected to because of the following informalities: It is unknown what is the U.S. disclosure discussed on page 4, an application serial number or a application publication number. The formula on page 12 is not an alkyl or dialkyl substituted trialkloxysilane or dialkoxysilane. These phrases imply that one or two of the alkoxy groups in trialkloxysilane, which has the formula $(RO)_3SiH$ and RO is an alkoxy group, or dialkoxysilane, which has the formula $(RO)_2SiH_2$ and RO is an alkoxy group, is replaced by an alkyl group. The formulas on

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page 12 and figure 1 show that the SOG is produced from an alkyltrialkoxysilane or a dialkyldialkoxysilane. Given this, the description of the silane as an alkyl or dialkyl substituted trialkoxysilane or dialkoxysilane is incorrect and should be corrected throughout the specification. The definitions of the R groups on page 12 does not correspond with the name on page 11, which limits the R groups to alkoxy groups and C1-8 alkyl groups. The teaching on page 12, line 6 is confusing since a trialkoxysilane must have three alkoxy groups. It can only have one alkyl or methacyloxypropyl group. Appropriate correction is required.

Claims 18-22 are objected to because of the following informalities: The claims are missing the required period at the end of the claim. Also the definitions of X, Y and U in claims 18-22 are missing “or” between “Ti” and “Sn”. In claim 18, formula II, in the definition of R, “alkyl” is misspelled. Finally, in claim 18, formula IV, in the definition of Z, the letter size of “Substituted Phenyl” should be the same as the other parts of the definition. Appropriate correction is required.

Claims 8 and 18-22 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

The variable definitions on page 11 for formulas I-IV do not correspond to the variables definitions for these formulas in claims 18-22. The discrepancies in the definitions need to be corrected.

Line 21 on page 12 through line 2 on page 13 teach the dopant is an organic material, such as an organic dye or a metal complex or a phosphor dopant nanoparticles, such as a YAG

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based phosphor or a moisture sensitive phosphor. Claims 8 and 25 teach the phosphor dopant can be an organic material selected from an organic dye or a metal complex. This is different from what is taught in the specification and claim 25. This discrepancy needs to be corrected.

Also the specification teaches the YAG based phosphor or a moisture sensitive phosphor are nanoparticles, but claim 8 implies there is no size limitation of the claimed YAG based phosphors and moisture sensitive phosphors. This discrepancy needs to be corrected.

Claims 1, 4, 5, 11, 12, 16, 17 and 23-27 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 is indefinite since the description of the silane as an alkyl or dialkyl substituted trialkoxysilane or dialkoxysilane is incorrect for the reasons given above in the objection to the disclosure. Claims 4 and 5 are confusing since a trialkoxysilane must have three alkoxy groups. It can only have one alkyl or methacyloxypropyl group. Claims 16 and 17 are duplicates of claims 11 and 12. The wording of these claims is identical. Applicant is advised that should claims 11 and 12 be found allowable, claims 16 and 17 will be objected to under 37 CFR 1.75 as being a substantial duplicate thereof. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k). Claims 24 and 25 recite the limitation "the dopant". There is insufficient antecedent basis for this limitation in the claims or in claim 22 from which they depend. Claims 24 and 25 should depend from claim 23. Finally, claims 23, 25 and 27 are improperly dependent on claim 17. These claims should depend from claim 18.

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The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-5, 11, 16, 18 and 19 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. patent 6,984,483.

Claims 1-5, 11, 12, 16-18 and 19 are rejected under 35 U.S.C. 102(b) as being anticipated by WO 01/04186.

U.S. patent 6,984,483 is the national stage application of WO 01/4186, which means it is the English translation for the WO document.

These references teach producing a silicic acid polycondensate by reacting diphenylsilane diol with a silane having the formula $\text{RSi}(\text{OR}')_3$, where R' is methyl or ethyl and R can be methacyloxyalkyl, such as methacyloxypropyl, or an glycidyoxyalkyl, such as glycidyoxybutyl. This is the claimed process and is identical process of figure 2. Thus one of ordinary skill in the art would expect the resulting polycondensate to be a hybrid glass/polymer inherently having formula I. The references teach the reaction can contain boron, aluminum, titanium or zirconium coupling agents, such as titanium propoxide. The references teach the claimed process and material.

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Claims 1-6, 9-13, 16-20, 22, 23 and 25-27 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. patent 6,818,721.

This reference teaches producing a silicic acid polycondensate by reacting diphenylsilane diol with a silane having the formula $\text{RSi}(\text{OR}')_3$, where R' is and alkyl and R can be an alkyl, such as octyl, methacyloxyalkyl, such as methacyloxypropyl, or an glycidyoxyalkyl, such as glycidyoxybutyl, in an alcohol in the presence of a catalyst. This is the claimed process and is identical process of figure 2 and 3. Thus one of ordinary skill in the art would expect the resulting polycondensate to be a hybrid glass/polymer inherently having formula I, when R is methacyloxypropyl, or inherently having formula II or IV, where R is octyl. Column 7, line 65 through column 8, line 41 teaches fillers, which are known light scattering materials; dyes, which are known to be organic materials; UV absorbers, which are UV light blocking materials, and antioxidants, which are oxygen scavengers, can be added to the polycondensate. The reference teaches the reaction can contain boron, aluminum, titanium or zirconium coupling agents, such as titanium propoxide. The reference teaches the claimed process and material.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-13, 16-18, 21 and 23-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. patent 6,818,721.

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This reference teaches producing a silicic acid polycondensate by reacting diphenylsilane diol with a silane which can have the formula $R_2Si(OR')_2$, where R' is an alkyl and R can be an C 1-18 alkyl, such as octyl, in an alcohol in the presence of a catalyst. This is the claimed process and is identical process of figure 4. Thus one of ordinary skill in the art would expect the resulting polycondensate to be a hybrid glass/polymer inherently having formula III. Column 7, line 65 through column 8, line 41 teaches fillers, which are known light scattering materials, dyes, which are known to be organic materials, UV absorbers or UV light blocking materials and antioxidants, which are oxygen scavengers, can be added to the polycondensate. The reference teaches the reaction can contain boron, aluminum, titanium or zirconium coupling agents, such as titanium propoxide. While the reference does not teach the addition of phosphors, it teaches the addition of any dye to enhance the optical properties of material. Phosphorescent dyes and fillers are known in the art, and are added when it is desired to have a material that exhibits phosphorescent properties, such as in light guides. Therefore, one of ordinary skill in the art would have found it obvious to use phosphorescent dyes or particles as the taught dye and filler to impart phosphorescent properties to the material. The reference suggests the claimed process and material.

Claims 14 and 15 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

There is no teaching or suggestion in the cited art of record to replace the catalyst in the process of U.S. patent 6,818,721 with a tin catalyst or one of the taught catalyst of claim 15.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Melissa Koslow whose telephone number is (571) 272-1371. The examiner can normally be reached on Monday-Friday from 8:00 AM to 3:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jerry Lorengo, can be reached at (571) 272-1233.

The fax number for all official communications is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

cmk
June 9, 2006


C. Melissa Koslow
Primary Examiner
Tech. Center 1700